INPUT®

Proposal for

Providing Qualitative Information on Buyer Values in the Application Software Market

Submitted to:

ANDERSEN CONSULTING

Revised

February 12, 1993

Submitted by:

INPUT

The Atrium at Glenpointe
400 Frank W. Burr Boulevard
Teaneck, New Jersey 07666
201-801-0050
Fax: 201-801-0441

INPUT

PROVIDING QUALITATIVE INFORMATION ON BUYER VALUES IN THE APPLICATION SOFTWARE MARKET

I. BACKGROUND AND OBJECTIVES

Andersen Consulting needs to understand specific buyer values toward applications software in both the U.S. and Europe.

II. SCOPE

Andersen has identified the following buyer values as requiring research:

- What are buyer attitudes (and tradeoffs) between applications software products vis-a-vis services (consulting, professional services or systems integration services)? This can include using/acquiring only products or only services or some combination.
  - What motivates a prospect to select different combinations or products and services?
  - To what extent do the selection and acquisition processes differ?
  - What changes are expected?
- What is the acceptability of "black box" solutions in such functional areas as high volume transaction processing, decision support systems, real time applications, groupware, etc.? Is the acceptability of "black box" solutions affected by other factors such as size or importance of the applications, or the familiarity of key decisionmakers with technology?
- To what extent are these factors affected by size of company? By type of application?
- Are there differences between the U.S. and Europe?

III. METHODOLOGY AND CONDUCT OF THE WORK

INPUT will conduct this study by means of structured telephone interviews in the U.S. and Europe. 120 interviews will be conducted in the U.S. and 120 in Europe. This size sample has been selected so that conclusions can be drawn for medium-sized and large companies in both the U.S. and Europe.

- See Exhibit 1, Interview Plan
- The European interviews will cover the U.K., France, Germany, Spain and Italy.
- Interviews will be divided between companies in the $50-500 million revenue range and those larger than $500 million.
- 80 interviews in each major geography (U.S./Europe) will focus on manufacturing firms (including wholesale distribution).
- There will be 20 interviews in each geography in health and 20 in utilities.

The attached questionnaire has been agreed on.

Andersen's sponsorship of the study will not be revealed to respondents. Respondent identities will not be associated with specific data. If Andersen desires, copies of completed questionnaires with identifiers removed will be supplied to Andersen upon the completion of the project. As an incentive to take part, respondents will be offered a summary of the project's results; this summary will be cleared with Andersen before release.

INPUT will analyze the results and prepare a written report.

IV. SCHEDULE

The following shows the proposed timing for the project.

Week	Activity
1	INPUT prepares questionnaire; Andersen reviews
2	Interviewing begins
4	Interviewing ends; U.S. data analyzed
5	European data analyzed; Report prepared

V. FEES

INPUT's professional fee for the study will be $32,000.

One-half of INPUT's professional fee for the study ($16,000) is due and payable upon authorization of the study; the remainder at the time of the presentation of results.

Out-of-pocket expenses (primarily telephone and production) are in addition to the professional fees and will be billed at cost. INPUT does not expect these to exceed $3,000.

This proposal will remain valid for thirty days, unless extended in writing.

AUTHORIZATION

To authorize the project as specified please sign and return one copy of this proposal, along with the initial fee. Upon acceptance by INPUT, a countersigned copy of the proposal will be returned to Andersen Consulting

AUTHORIZED BY:	ACCEPTED BY:
Andersen Consulting	**INPUT**
Name _____	Name _____
Title _____	Title _____
Date _____	Date _____

Exhibit 1

INTERVIEW PLAN

	Respondent Type		
Company Size ($MM)	IS	User	Total
$50-500	30	30	60
Over $500	30	30	60
Total	60	60	120

Note: This plan applies to the U.S. and Europe for a total of 240 interviews.

"QUALITATIVE" QUESTIONNAIRE

DRAFT - February 2, 1993

INPUT is an international research and consulting firm, located in Teaneck NJ. Our firm is conducting a study on the application of new forms of computer technology to important business processes. Neither your name or the name of your firm will be associated with data collected for this study. In return for your taking part in this study, we will send you a summary of the study at no charge.

1a. What are the three applications that your organization will be putting the most priority on in the next three years?

1b. Which one of the following activities are most likely to occur to each application:

- Ongoing modifications
- Extensive rewriting
- Replaced by a custom-built application
- Replaced by a software package*

1c. For each application, what are the business reasons driving these changes?

1d. What is the approximate level of expected investment (excluding hardware) for each application? [Note: Use the ranges below if necessary]

- Under $100,000
- $100K - 500K
- $500K - $1 MM
- $1 - 5MM
- $5 - 10MM
- Over $10MM

1e. What organizational unit is the primary decisionmaker for each application?

[Answer sheet schematic for Questions 1a-e]

(a) Application	(b) Change*	(c) Reason	(d) Investment	(e) Decisionmaker

* [Where software package is expected to be used, fill out a Question 2 sheet for each application cited]

[Fill out "Question 2" pages for each application involving packaged software]

2a. You mentioned that a software package was likely to be used in the _____ application. How important are the following functions in this application (1 = low; 5 = high)?

- Decision support _____
- "Groupware" or concurrent usage _____
- Transaction processing _____
- Real time control _____

[Where a function is rated a 4 or 5: How important is it for your firm to thoroughly understand the particular technology used to support these functions? (Discuss)

_____

_____

_____

2b. Will the package be used more-or-less "as is" or do you expect to modify it?

- As is _____ Why? _____
- Modifications _____ Is this because (answer 1 more)
  - No package has all the functions that your organization needs. _____
  - The package should conform to your organization's business practices. _____
  - Business needs are constantly changing. _____
  - Some other reason (discuss) _____

    _____

    _____
- Don't Know (discuss) _____

  _____

  _____

2c. How important is it that the package incorporate the "best practices" from your industry generally, as opposed to the package conforming to your organization's own business practices?

_____

_____

_____

2d. Do you expect to integrate this package with other new packages? With older "legacy" systems? With new technologies, such as pen-based computing or client/server architecture? How do you expect to go about this?

Other packages _____

"Legacy" applications _____

New technology (describe) _____

_____

Other (describe) _____

_____

2e. How will your firm handle migration of files and data bases from the old system to the new system? If migrating files: How adequate are the tools or aids that you expect to use?

_____

_____

_____

2f. To what extent do you expect to migrate specific applications code from an older application to the new package? Would you be more likely to do so if the new package would readily accept such code? If migrating code: How adequate are the tools or aids that you expect to use?

_____

_____

_____

2g. How important is it that the following technology be incorporated into a new version of this application? (1= low; 5 = high)? Why? What will be the importance in 1996? Why?

	1993	1996
• Object-oriented technology	_____	_____
• Client/server technology	_____	_____
• General technology that makes package flexible and tailorable	_____	_____
• Other technology (describe)	_____	_____

_____

THANK YOU FOR THE INFORMATION ON SPECIFIC APPLICATIONS. NOW I WOULD LIKE TO ASK A FEW GENERAL QUESTIONS.

3a. In general, does your organization expect to be seeking technology solutions for a particular business problem as it arises or to seek an integrated solution for a group of business issues from the beginning (for example, changes to the order entry process alone or changes to all associated manufacturing support applications)? Why? Do you expect this to change?

_____

_____

_____

3b. Suppose a standalone software package handled a particular application very well, but was not yet part of a suite of integrated applications. How would this affect your attitude toward acquiring the package?

(Check off one or more below and/or use as a prompt if no answer volunteered.)

- Would have no effect on decision _____
- Would acquire a standalone package if there was a strong business need _____
- Would acquire the package if the package represented a quantum leap in technology _____
- Would probably wait until additional integrated applications were available _____
- Would definitely wait _____

4. There are three approaches that a firm can take, in dealing with new technology. Which of the following categories do you place your organization in? Why? What variations are there now or do expect there to be in the future?

- Learning about the technology before there is a specific application that uses it
- Understanding the technology after applications uses have been identified
- Focusing primarily on what an application can accomplish, with much less concern about the technology used to achieve a solution.

_____

_____

_____

5a. From your standpoint, what are the advantages and disadvantages of buying applications software packages from a firm that primarily offers applications development services?

- Advantages _____
  _____
  _____
- Disadvantages _____
  _____
  _____

5b. Turning the question around, what are the advantages and disadvantages of obtaining applications development services from a firm that primarily sells applications software packages?

- Advantages _____
  _____
  _____
- Disadvantages _____
  _____
  _____

INPUT®

Atrium at Glenpointe, 400 Frank W. Burr Blvd., Teaneck, NJ 07666 (201) 801-0050
Fax (201) 801-0441

FAX TRANSMITTAL FORM

Date: February 16, 1993

Confidential: Y / N
Urgent: Y / N

To: Name: Ms. Lisa Lane

Tel./Location: 312-507-5553

Co.: Andersen Consulting

Page: 1 of 12

Fax No: Joanne Ponnwitz

File: Chron
Contact
Other:

From: 312-507-1043

Subject: Attached Revised Proposal

Attached is the revised proposal that we discussed earlier. I understand that Andersen has put this project on hold pending further discussion of your requirements. Please give us a call when you have decided upon these requirements, and let us know if there is anything else we can do to be of assistance.

****
*** ACTIVITY REPORT ***
****

TRANSMISSION OK

TX/RX NO.	1804
CONNECTION TEL	13125071043
CONNECTION ID	
START TIME	02/16 13:39
USAGE TIME	06'37
PAGES	12
RESULT	OK

ORDER/INVOICE/FULFILLMENT

Acctg. ONLY

Inv. Comp.	By:	Date:	Client #	Order #	Inv. #	Multi-Invoicing of

CUSTOMER/INVOICE TO

ORIGINATOR (Signaure) _____ DATE 1/5/93

APPROVALS
VP Sales/Res.
Date
Controller
Date

Company Andersen Consulting
Name Mr./Ms. Susan Erdman
Position
Address 69 W Washington St
City Chicago
Province
Phone 312-507-4978

CA Tax Rate
CT Tax 8%
Salutation
State IL
Zip 60602
Country
Fax 312-507 1043
Tlx

Special instructions for invoicing, progress billing or delayed payments, etc.
Have agreed to pay up front, but may be easier to bill at end (end of Jan)

ORDER

Contract Year Beg. _____
End _____

❑ New Order (N1) ❑ Prior Yr (N3)
❑ Renewal (N2) ❑ Cancel

Invoice ❑ Fulfillment Only
Type ❑ W/Order (OR)
❑ Monthly (MO)
❑ Quarterly (QT)
❑ Pending

Employee # Sold by:		Employee # Commission to:	
PR	100%	Paul L	100%
	%		%
	%		%

CLIENT AUTH.

PO# _____
Attach all authorizing documents to white (contract) copy.

INPUT Contract ❑ Letter ❑ Verbal ❑

SHIP TO

Company
Name Mr./Ms. Same
Position
Address
City
Province
Salutation
State
Zip
Country
Phone

ITEM TYPE

- Subscription (SB)
- Custom (YC/ZC/KC)VC
- Multiclient (MC)
- Reports (RP)
- Copies (CP)
- Consult/Present (PR)
- Newsletter (NL)
- Reimbursed Costs (EX)
- Merger/Acq. (ME)
- Exec Overview (EO)
- Conf/Seminar (CN)

DETAIL

Indicate US, UK, FR, VA	Prod. ID/Year	Item Type Code	Item Description or Title	Quantity	Price	Shipped By	Date
US	YN/ANI	YC	Renew US/Eur Mfg mkt		$14,000		

Fulfillment to be completed in: ❑ Corporate ❑ London ❑ Virginia ❑ France ❑ Other _____

- White - Contract • Green - Fulfillment • Yellow - Invoice • Pink - Originator • Goldenrod - Sales Manager

M&S180 11/90

INPUT

ANDERSEN CONSULTING
ARTHUR ANDERSEN & CO., S.C.

AMERICAS SOFTWARE
(312) 507-1043 / (312) 507-1048

Andersen Consulting
69 West Washington St.
Chicago, IL 60602

Date: 1-4-93

To: TOM O'FLAHERTY **Office:** 201/801-0441

From: SUSAN M. ERDMAN **Pages to follow:** (6)
(RETURN TO ROOM 2014/A)

Comments: FOR IMMEDIATE DELIVERY

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If any problems result with this transmission, please call person listed below:

Operator: MARILYN J. BUSALD Phone: (312) 507-3048

INPUT

Proposal for

Providing Quantitative Information on Application Software and Services Markets

Submitted to:

ANDERSEN CONSULTING

December 29, 1992

Submitted by:

INPUT

The Atrium at Glenpointe
400 Frank W. Burr Boulevard
Teaneck, New Jersey 07666
201-801-0050
Fax: 201-801-0441

INPUT

PROVIDING QUANTITATIVE INFORMATION ON APPLICATION SOFTWARE AND SERVICES MARKETS

I. BACKGROUND AND OBJECTIVES

Andersen Consulting has requested that INPUT provide quantitative data on software and services in several vertical markets.

- Attachment 1 shows the data requested (asterisked items)
- Attachment 2 shows Andersen's prioritization of its data needs
- Attachment 3 defines the vertical markets, primarily by SIC codes

The materials above and the contents of this proposal were reviewed by Andersen and INPUT at a meeting in Chicago on December 21, 1992.

II. SCOPE

INPUT can provide the items marked "A" on Attachment 2 by January 15, 1993 and items marked "B" by February 15. INPUT is not proposing to supply the item in "C" for reasons of time and cost. (These dates assume an authorization to proceed by January 4, 1992.)

The quantitative items can be provided in detail through 1997. INPUT will provide indicative numbers through 2000.

INPUT

III. FEE

"A" Items

Accept

INPUT's professional fee for the study will be $14,000.

One-half of INPUT's professional fee for the study ($7,000) is due and payable upon authorization of the study; the remainder at the time of the presentation of results.

Out-of-pocket expenses (telephone, production, and travel) are expected to be minimal and are included in the fee.

"B" Items

DO NOT ACCEPT AT THIS TIME

INPUT's professional fee for the study will be $23,000. (This is additive to "A" above.)

One-half of INPUT's professional fee for the study ($11,500) is due and payable upon authorization of the study; the remainder at the time of the presentation of results.

Out-of-pocket expenses (telephone, production, and travel) are expected to be minimal and are included in the fee.

This proposal will remain valid for thirty days, unless extended in writing.

To authorize the study, please check the option(s) you wish to exercise and sign the appropriate block below.

INPUT

AUTHORIZATION

To authorize the project as specified please check the option(s) you wish to exercise, then sign and return one copy of this proposal, along with the initial fee. Upon acceptance by INPUT, a countersigned copy of the proposal will be returned to Andersen Consulting.

OPTIONS

"A" Items ✓ – per the attached

"B" Items to be decided

AUTHORIZED BY:	ACCEPTED BY:
Andersen Consulting	**INPUT**
W T Darnton	
Name	Name
PARTNER	
Title	Title
1/4/93	
Date	Date

INPUT - QUANTITATIVE PROPOSAL 12/30/92

BY JANUARY 15 **$14,000**

- o USER EXPENDITURES FOR TURNKEY SYSTEMS, APPLICATION SOFTWARE, PROFESSIONAL SERVICES, AND SYSTEMS INTEGRATION
- o FORECAST TO 1997; INDICATIVE TO 2000
- o SEGMENTED BY CROSS INDUSTRY AND INDUSTRY SPECIFIC APPLICATION SOLUTIONS

U.S. MARKET

- o "D1" ANALYSIS FOR EACH OF THE SEVEN MAJOR GROUPINGS BELOW BY COMPANY SIZE($50 - 150M AND >$150M BASED ON NUMBER OF EMPLOYEES)

1. INDUSTRIAL	CONSUMER	PROCESS
AUTO(SUPPLIERS) 3714 - vehicle parts/accessories	FOOD & CPG Business Week Personal Care Segment also 20s and 21s	CHEMICAL 2800s - Chems exclude 283s
ELECTRONICS 3600s Electronics exclude367s (semiconducts) 3800s Instruments	WHOLESALE 5000s Durables 5100s Nondurables	PHARMA 283s Pharma/ Bios

IND/CONSUMER MFGR
- 23s apparel/texiles
- 25s furniture/fixtures
- 27s print/publishing
- 31s leather products
- 34s fabricated metals
- 35s ind machinery/equip

HEAVY EQUIP/CONSTRUCTION
- not doing

2. TOTAL INFORMATION SERVICES MARKET
3. TOTAL FOR MFGR MARKET & TOTAL FOR DISTRIBUTION MARKET
4. TOTAL FOR INDUSTRIAL, CONSUMER, PROCESS/ENERGY GROUPS CROSS INDUSTRY BY HARDWARE PLATFORM

EUROPEAN MARKET ALSO CANADA & LATIN AMERICA

1. NOT AVAILABLE BY SIC
2. TOTAL INFORMATION SERVICES MARKET FOR:
   AUSTRIA, BELGIUM, DENMARK, EASTERN EUROPE, FINLAND, FRANCE, GERMANY, ITALY, NETHERLANDS, NORWAY, OTHER EUROPE, SPAIN, SWEDEN, SWITZERLAND, U.K. plus additional supplied by INPUT
   - o BY COMPANY SIZE IF POSSIBLE
3. TOTAL FOR MFGR MARKET & TOTAL FOR DISTRIBUTION MARKET
4. NOT AVAILABLE FOR IND, CONSUMER, PROC/ENERGY

ASIA PACIFIC MARKET

1. NOT AVAILABLE BY SIC
2. TOTAL INFORMATION SERVICES MARKET FOR:
   HONG KONG, JAPAN, OTHER ASIA/PACIFIC, SINGAPORE, TAIWAN, plus additional supplied by INPUT
3. NOT AVAILABLE TOTAL FOR MFGR MARKET & TOTAL FOR DIST MARKET
4. NOT AVAILABLE FOR IND, CONSUMER, PROC/ENERGY

BY FEBRUARY 15 - to be decided

EUROPEAN MARKET $15,000
and CANADA AND LATIN AMERICA?

4. TOTAL FOR INDUSTRIAL, CONSUMER, PROCESS/ENERGY GROUPS
   CROSS INDUSTRY BY HARDWARE PLATFORM

ASIA PACIFIC MARKET $8,000

3. TOTAL FOR MFGR MARKET & TOTAL FOR DISTRIBUTION MARKET
4. NOT AVAILABLE FOR IND, CONSUMER, PROC/ENERGY

INPUT®

Atrium at Glenpointe, 400 Frank W. Burr Blvd., Teaneck, NJ 07666 (201) 801-0050
Fax (201) 801-0441

FAX TRANSMITTAL FORM

Date: Feb 7

Confidential: Y / N
Urgent: (Y) N

To: Name: Mary Brautigan
Tel./Location: 654-0100
Co.: Westfield
Fax No: 908-233-6137

Page: 1 of 7

File: Chron
Contact
Other:

From: Tom O'Flaherty

Subject: Possible Interviewing JUS - Europe

(1) Questionnaire attached (telephone). Note: There would be multiple "page 2s" for each company.

(2) Sample targets (Total = 100)

Note: To extent possible, interviews would be "paired", after an IS interview, at least one user would be interviewed (referred via question 1e)

January 8, 1993

Tom,

Attached are additional questions for the survey (needs wording):

1-1 1. Attempt to quantify the type of Systems Integration work cutomers or vendors are doing (rank in order of importance and/or amount of work):

TYPES OF WORK:

1-2 o Modifications to package to support best (or client's) best practices

1-3 o Integration of package with legacy systems

1-4 o Integration of multiple packages

1-5 o Implementation of extensions to package functionality

1-6 o Implementation/integration of competitive technologies (e.g. RFI devices or pen-based computers for supporting remote, point-of-function computing)

2. Survey question to gain knowledge of the level of expectations the customer has with regards to the tools used to migrate existing product to new product (i.e. data migration vs. replaced functionality)

2-1 data migration - converting all files (Master & transaction files) to a new system

2-2 replaced functionality - migrating code from existing system to a new system (assuming functionality doesn't exist in the new system). Also includes apropriate conversion of data files.

3-1 3. a. Rate (or describe) the acceptability of a object oriented distributed, departmental, client server software solution based on the assumption that the technology will grow in to a full enterprise solution in future releases.

3-2 b. Describe the key issues regarding this type of solution

Please call Lisa 312507-5553 or Susan 312-507-4978 if you need further clarification.

INPUT

CONFIDENTIAL—Property of INPUT

CONTACT REPORT

INPUT Staff: Init. DM Init. _____ ☐ INPUT office ☐ Client Office ☐ Other Tel

Contact Date: 1/20/93

Date Written: 1/20/1

Company Andersen	DISTRIBUTION: Action	Info.	By When	Prog./Proj. ID YNAN1 Describe Action-F/U
Name Susan Erdman		FR		
Title		JP		
Address				
Phone: ( ) -				
Fax: ( ) -				

Said partner would like different segmentation (vs current 50-150mm, 150+) :

50-100, 100-200, 200-500, 500+

Consulted w/JP, agreed that further breakout of emp/est → $/co not feasible w/o a great deal of manual work & Dun still might not be accurate

Passed msg to Susa

☐ Continued over

"QUALITATIVE" QUESTIONNAIRE

DRAFT - January 18

INPUT is an international research and consulting firm, located in Teaneck NJ. Our firm is conducting a study on the application of new forms of computer technology to important business processes. Neither your name or the name of your firm will be associated with data collected for this study. In return for your taking part in this study, we will send you a summary of the study at no charge.

1a. What are the three applications that your organization will be putting the most priority on in the next three years?

1b. Which one of the following activities are most likely to occur to each application:

- Ongoing modifications
- Extensive rewriting
- Replaced by a custom-built application
- Replaced by a software package*

1c. For each application, why will this activity occur (rather than an alternative).

1d. What is the approximate level of expected investment (excluding hardware) for each application? [Note: Use the ranges below if necessary]

- Under $100,000
- $100K - 500K
- $500K - $1 MM
- $1 - 5MM
- $5 - 10MM
- Over $10MM

1e. What organizational unit is the main decisionmaker for each application?

[Answer sheet schematic for Questions 1a-e]

(a) Application	(b) Change*	(c) Reason	(d) Investment	(e) Decisionmaker

* [Where software package is expected to be used, fill out a Question 2 sheet for each application cited]

[Fill out a separate sheet for each application involving packaged software]

2a. You mentioned that the use of a software package was likely to be used in the _____ application. How important are the following functions in this application (1 = low; 5 = high)?

- Decision support _____
- "Groupware" or concurrent usage _____
- Transaction processing _____
- Real time control _____

[Where a function is rated a 4 or 5: How important is it for your firm to thoroughly understand the particular technology used to support these functions? (Discuss)

_____

_____

_____

2b. Will the package be used more-or-less "as is" or do you expect to modify it?

- As is _____ Why? _____
- Modifications _____ Is this because
  - No package has all the functions that your organization needs. _____
  - The package should conform to your organization's business practices. _____
  - Business needs are constantly changing. _____
  - Some other reason (discuss) _____

    _____

    _____
- Don't Know _____ Why? _____

2c. How important is it that the package incorporate the "best practices" from your industry generally, as opposed to the package conforming to your organization's own business practices?

_____

_____

_____

2d. Do you expect to integrate this package with other new packages? With older "legacy" systems? With new technologies, such as pen-based computing or client/server architecture? How do you expect to go about this?

Other applications _____

Legacy application _____

New technology (describe) _____

_____

Other (describe) _____

_____

2e. How will your firm handle migration of files and data bases from the old system to the new system? If migrating: How adequate are the tools or aids that are anticipated to be used?

_____

_____

_____

2f. To what extent are you expecting to have to migrate specific applications code from an older application to the new package? Would you be more likely to do so if the new package would readily accept such code? If migrating code: How adequate are the tools or aids that are anticipated to be used?

_____

_____

_____

2g. How important is it that the following technology be incorporated into a new version of this application? (1= low; 5 = high)? Why? What will be the importance in 1996? Why?

	1993	1996
• Object-oriented	_____	_____
• Client/server	_____	_____

• General technology to make it flexible & tailorable

(3)

THANK YOU FOR THE INFORMATION ON SPECIFIC APPLICATIONS. NOW I WOULD LIKE TO ASK A FEW GENERAL QUESTIONS.

3a. In general, does your organization expect to be seeking technology solutions for particular business problems as they arise or to seek an integrated solution for a group of business issues from the beginning? Why? Do you expect this to change?

_____

_____

3b. As an example: Suppose a software package handled a particular application particularly well, but was not yet part of a suite of integrated applications. How would this affect your potential acquisition of the package?

_____

_____

4. Sometimes the following technologies are considered to be an interlinked "cluster" of technological capabilities that can't easily be considered in isolation: Object-oriented, distributed, departmental, client/server. Do you agree or do you think that some or all of these are better looked at separately?

- Clustered _____
  - How far along do you believe that this technology is now (on a scale of 1 to 5, with 5 being high)? ____ Why?
  - How far do you expect this to be in five years? ___ Why?
- Separate _____ Why?
  - How far along do you believe client/server technology is now (on a scale of 1 to 5, with 5 being high)? ____ Why?
  - How far do you expect this to be in five years? ___ Why?

5. In looking at new technology there are three approaches that a firm can take:

- Trying to understand the technology before there is a specific application to use with it.
- Trying to understand the technology after applications uses have been identified
- Focusing primarily on what an application can accomplish, with much less concern about the technology used to achieve a solution.

Which general category do you place your organization in? What variations are there now or do expect there to be in the future?

- New technology _____
- New technology linked to an application _____
- Solution focus _____

ANDERSEN
CONSULTING
ARTHUR ANDERSEN & CO., S.C.

AMERICAS SOFTWARE
(312) 507-1043 / (312) 507-1048

Andersen Consulting
69 West Washington St.
Chicago, IL 60602

Date: 12/30/92

To: Tom O'Flaherty

Office: 201 801044 |

From: SUSAN M. ERDMAN

Pages to follow: 2
(RETURN TO ROOM 2014/A)

Comments: Tom - Attached is our understanding of what will be provided in the "quantitative" study. After reviewing with Bill Darnton we will attach this to the signed proposal.

Susan

This facsimile may contain PRIVILEGED AND/OR CONFIDENTIAL INFORMATION intended only for the use of the addressee. If you are not the addressee, or the person responsible for delivering it to the person addressed, you may not copy or deliver this to anyone else. If you received this facsimile by mistake, please immediately notify us by telephone collect. Thank you.

If any problems result with this transmission, please call person listed below:

Operator: MARILYN J. BUSALD Phone: (312) 507-3048

INPUT - QUANTITATIVE PROPOSAL 12/30/92

BY JANUARY 15 $14,000

- o USER EXPENDITURES FOR TURNKEY SYSTEMS, APPLICATION SOFTWARE, PROFESSIONAL SERVICES, AND SYSTEMS INTEGRATION
- o FORECAST TO 1997; INDICATIVE TO 2000
- o SEGMENTED BY CROSS INDUSTRY AND INDUSTRY SPECIFIC APPLICATION SOLUTIONS

U.S. MARKET

o "D1" ANALYSIS FOR EACH OF THE SEVEN MAJOR GROUPINGS BELOW BY COMPANY SIZE($50 - 150M AND >$150M BASED ON NUMBER OF EMPLOYEES)

1. INDUSTRIAL

AUTO(SUPPLIERS)
3714 -
vehicle parts/accessories

ELECTRONICS
3600s Electronics
exclude367s (semiconducts)
3800s Instruments

IND/CONSUMER MFGR
23s apparel/texiles
25s furniture/fixtures
27s print/publishing
31s leather products
34s fabricated metals
35s ind machinery/equip

HEAVY EQUIP/CONSTRUCTION
not doing

CONSUMER

FOOD & CPG
Business Week
Personal Care Segment
also 20s and 21s

WHOLESALE
5000s Durables
5100s Nondurables

PROCESS

CHEMICAL
2800s - Chems
exclude 283s

PHARMA
283s Pharma/
Bios

2. TOTAL INFORMATION SERVICES MARKET
3. TOTAL FOR MFGR MARKET & TOTAL FOR DISTRIBUTION MARKET
4. TOTAL FOR INDUSTRIAL, CONSUMER, PROCESS/ENERGY GROUPS CROSS INDUSTRY BY HARDWARE PLATFORM

EUROPEAN MARKET ALSO CANADA & LATIN AMERICA

1. NOT AVAILABLE BY SIC
2. TOTAL INFORMATION SERVICES MARKET FOR:
   AUSTRIA, BELGIUM, DENMARK, EASTERN EUROPE, FINLAND, FRANCE, GERMANY, ITALY, NETHERLANDS, NORWAY, OTHER EUROPE, SPAIN, SWEDEN, SWITZERLAND, U.K. plus additional supplied by INPUT
   o BY COMPANY SIZE IF POSSIBLE
3. TOTAL FOR MFGR MARKET & TOTAL FOR DISTRIBUTION MARKET
4. NOT AVAILABLE FOR IND, CONSUMER, PROC/ENERGY

ASIA PACIFIC MARKET

1. NOT AVAILABLE BY SIC
2. TOTAL INFORMATION SERVICES MARKET FOR:
   HONG KONG, JAPAN, OTHER ASIA/PACIFIC, SINGAPORE, TAIWAN, plus additional supplied by INPUT
3. NOT AVAILABLE TOTAL FOR MFGR MARKET & TOTAL FOR DIST MARKET
4. NOT AVAILABLE FOR IND, CONSUMER, PROC/ENERGY

BY FEBRUARY 15

EUROPEAN MARKET and CANADA AND LATIN AMERICA? **$15,000**

4. TOTAL FOR INDUSTRIAL, CONSUMER, PROCESS/ENERGY GROUPS CROSS INDUSTRY BY HARDWARE PLATFORM

ASIA PACIFIC MARKET **$8,000**

3. TOTAL FOR MFGR MARKET & TOTAL FOR DISTRIBUTION MARKET
4. NOT AVAILABLE FOR IND, CONSUMER, PROC/ENERGY

AGENDA
DECEMBER 21 1992

Outline of AC vision project and the role of INPUT research	Bill Darnton Dwight Dowdell
INPUT'S Database and Research Methods	Tom O'Flaherty
Phase 1 Quantitative Research Scope Geographic Scope (targeted countries/markets Worldwide) Results Timing	Susan Erdman/Lisa Lane
Phase 2 Qualitative Research Scope Geographic Scope Results Timing	Susan Erdman/Lisa Lane
Additional Issues: Research on Services Market Synergy with Tom Moldauer's Research Cost of Phase 1 and 2	All

UPDATE FOR BILL/DWIGHT AS OF 12/15/92

CONFERENCE CALL WITH TOM O'FLAHERTY FROM INPUT, SUSAN ERDMAN, LISA LANE 12/15:

QUANTITATIVE DATA

ALL INFORMATION IS PROVIDED BASED ON USER EXPENDITURES

BY 1//15/93 INPUT CAN PROVIDE US WITH THE FOLLOWING BASED ON THEIR AVAILABLE DATABASE INFORMATION:

1. U.S. BY OUR SIC DEFINITIONS USER EXPENDITURE FORECASTS THROUGH 1997. CAN PROBABLY GET CUT AT ALL COMPANIES > $50M
   * NEED FROM BILL/DWIGHT: SIC CONFIRMATION
2. WORLDWIDE USER EXPENDITURES FORECAST ONLY AT THE INFORMATION SERVICES LEVEL (NOT BY SIC OR BY CONSUMER/PROCESS/INDUSTRIAL).
   * CAN MAYBE GET AT THE TOTAL MANUFACTURING & DISTRIBUTION LEVEL(SPLIT FROM GOVERNMENT AND FINANCE)
3. GROSS ESTIMATION OF THE MARKET TO THE YEAR 2000

QUALITATIVE (SURVEY) DATA

WILL PROVIDE US WITH INFORMATION ON WORLDWIDE MARKETS BASED ON USER EXPENDITURES

FOR MONDAY'S MEETING:

WHAT INFORMATION OTHER THAN USER EXPENDITURE DO WE WANT INPUT TO RESEARCH (SURVEY QUESTIONS)

WE NEED TO PROVIDE A LIST OF PRIORITY COUNTRIES/MARKETS - AND ALIGN WITH INPUT'S AVAILABLE COUNTRIES

ARE WE ALSO LOOKING FOR SERVICES POTENTIAL IN THE MARKET OR STRICTLY SOFTWARE POTENTIAL - DO WE WANT INPUT TO ADD AS PART OF THE SURVEY?

GENERAL

DO WE CARE ABOUT COMPANY SIZE SEGMENTATION OTHER THAN CUTTING AT COMPANIES GREATER THAN $50M?

WHAT IS THE BUDGET FOR 1. QUANTITATIVE & 2. QUALITATIVE

RECAP OF KEY POINTS FROM DISCUSSION ON 12/15

INPUT DATA:

All information provided by INPUT is based on user expenditures.

Worldwide data provided by INPUT in the quantitative phase at the IS level will include cross industry application software such as financials and human resources as well as industry specific such as discrete manufacturing.

No other standard views of data exist other than views by delivery mode, industry sectors, and company size.

INPUT user surveys are done on a yearly basis to determine what happened last year in 22 vertical markets. Additionally, they develop a 5 year forecast surveying users and vendors on software and information services.

Published data is that which is annually surveyed for and delivered with an INPUT subscription. Unpublished data is that which is done for special purposes. INPUT makes no commitment that this information exists or is up to date.

INPUT recommends that AC combines the following elements on the User Expenditure Forecast By Deliver Mode and Submode document (exhibit D-1) to represent software potential:

Application software under the Turnkey Systems delivery mode
Total for Application S/W Product delivery mode

PRIORITIZED EXPECTATIONS PHASE 1 (QUANTITATIVE)

Phase 1 - Quantitative Research **Completion Date 1/15/93**

Overall Request: All information generated should only include expenditure estimates from companies greater than 50 million dollars. If this filter criterion of >50 million would require a significant amount of time causing us to miss the January 15 deadline, it would become low priority.

High Priority

User Expenditure Forecast by Delivery Mode and Submode (exhibit D-1) document for the following :

United States:

D-1 for each 2 digit SIC code identified by AC

D-1 for Information Services Market

Europe:

D-1 for Information Services Market (each major country or Europe as a whole)

Asia/Other:

D-1 for Information Services Market (each major country)

Medium Priority

United States:

D-1s for Mfg and Dist industries as a whole (2 of 4 major categories; mfg, govt,fin,dist)

D-1 for industrial, consumer, process/energy groups.*

Europe:

D-1s for Mfg and Dist industries as a whole (2 of 4 major categories)

D-1 for industrial, consumer, process/energy groups.**

Asia/Other:

D-1s for Mfg and Dist industries as a whole (2 of 4 major categories)

D-1 for industrial, consumer, process/energy groups.**

Low Priority

Extend macro numbers (industrial, consumer, process/energy) for countries worldwide to the year 2000.

* AC will provide a list of 2 digit SIC codes that comprise these three groupings.

** We understood from our conversation that these groupings don't exist in your standard database, but projections on these macro level numbers was feasible by Jan 15.

INDUSTRIAL

AUTOMOTIVE Suppliers
~~37XX~~
3714

Electrical / ELECTRONICS (1)
38xx 36XX exclude semiconductor

HEAVY EQUIP/CONST.
15XX?
16XX?
17XX?

Industrial / CONSUMER MFG
23XX?
25XX?
27XX?
31XX?
34XX?
35XX?

CONSUMER

FOOD & CPG (2)
20XX
21XX

WHOLESALE
50XX
51XX

PROCESS

CHEMICAL
~~28XX?~~
ex 283

PHARMACEUTICAL
~~28XX?~~
283

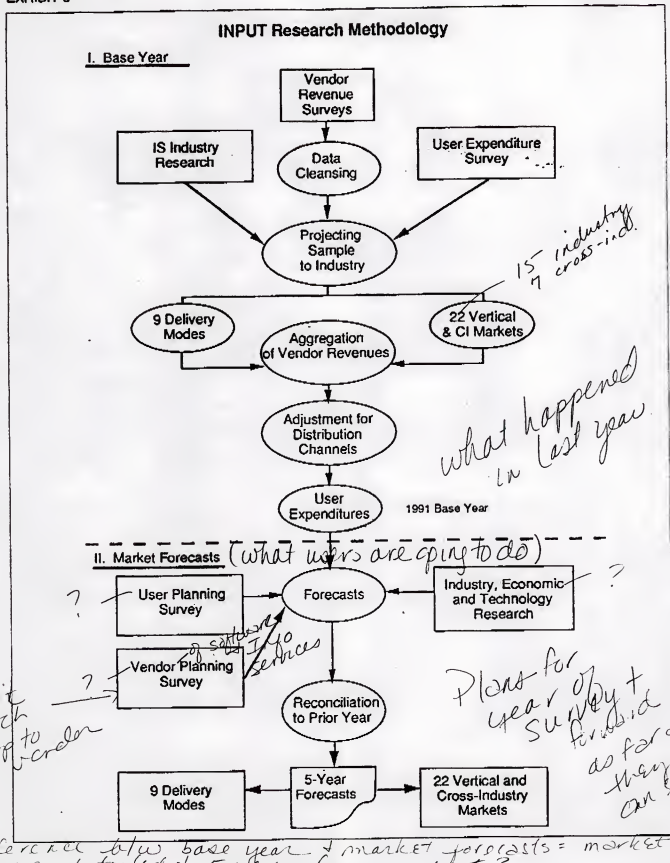
Split (4-digit)

(1) Exclude 367x (Components)

(2) CPG will be scoped by taking Business Week "Personal Care" segment (see attached) as a percent of overall Mfg

II

EXHIBIT 6



Difference b/w base year + market forecasts = market is more detailed + 5 year plan is output?

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III

Exhibit 2 lists the industry-specific sectors and cross-industry applications covered by the Market Analysis Program. The publication INPUT's *Definition of Terms* in this binder provides a complete description of INPUT's market structure and definitions, including Department of Commerce SIC Codes at the two-digit level.

EXHIBIT 2

Information Services Market Sectors

Industry-Specific Sectors	Cross-Industry Sectors
Discrete Manufacturing	Accounting
Process Manufacturing	Education and Training
Transportation	Engineering and Scientific
Utilities	Human Resources
Telecommunications	Office Systems
Wholesale Distribution	Planning and Analysis
Retail Distribution	Other Sales and Marketing
Banking and Finance	
Insurance	
Health Services (Medical)	
Education	
Business Services	
Federal Government	
State and Local Government	
Miscellaneous Industries	
15	7

The objective of the MAP reports is to provide vendors in the information services industry with the insights necessary to:

- Identify emerging market opportunities
- Focus on high-growth areas
- Understand competition in specific markets

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INPUT also publishes market sector reports analyzing 15 industry and 7 cross-industry market sectors. These reports, published annually by INPUT, analyze the information services opportunities in industry sectors such as insurance, transportation, and discrete manufacturing—and in cross-industry sectors such as accounting, human resources and office systems.

The relationship between delivery mode forecasts and market sector forecasts is shown in Exhibit I-3.

For a more complete discussion of INPUT's information services industry structure and market sector definitions, please refer to INPUT's *Definition of Terms*.

EXHIBIT I-3

Delivery Mode versus Market Sector Forecast Content

Delivery Mode	Submode	Market Sectors: Industry Sectors	Market Sectors: Cross-Industry Sectors	Market Sectors: Other
Processing Services	Transaction	X	X	
	Utility			X
	Other			X
Turnkey Systems		X	X	
Applications Software Products		X	X	
Systems Operations	Platform	X		
	Applications	X		
Systems Integration		X		
Professional Services		X		
Network Services	Network Applications	X		
	Electronic Information Services	X		X
Systems Software Products				X

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VII

P.1

Industry Sector Definitions

Industry Sector	SIC Code	Description
Business Services	65xx	Real estate
	70xx	Hotels, rooming houses, camps, and other lodging places
	72xx	Personal services
	73xx	Business services (except hotel reservation services in 7389)
	7389x	Hotel reservation services
	75xx	Automotive repair, services and parking
	76xx	Miscellaneous repair services
	78xx	Motion pictures
	79xx	Amusement and recreation services
	81xx	Legal services
	83xx	Social services
	84xx	Museums, art galleries, and botanical/zoological gardens
	86xx	Membership organizations
	87xx	Engineering, accounting, research, management, and related services
	89xx	Miscellaneous services
Federal Government	9xxx	
State and Local Government	9xxx	
Miscellaneous Industries	01xx	Agricultural production - crops
	02xx	Agricultural production - livestock/animals
	07xx	Agricultural services
	08xx	Forestry
	09xx	Fishing, hunting and trapping
	15xx	Building construction - general contractors, operative builders
Heavy Equip Const	16xx	Heavy construction - contractors
	17xx	Construction - special trade contractors

VII p2

Industry Sector Definitions

Industry Sector	SIC Code	Description
Discrete Manufacturing	23xx	Apparel and other finished products
	25xx	Furniture and fixtures
	27xx	Printing, publishing and allied industries
	31xx	Leather and leather products
	34xx	Fabricated metal products, except machinery and transportation equipment
	35xx	Industrial and commercial machinery and computer equipment
	36xx	Electronic and other electrical equipment and components, except computer equipment
	37xx	Transportation equipment
	38xx	Instruments; photo/med/optical goods; watches/clocks
	39xx	Miscellaneous manufacturing industry
Process Manufacturing	10xx	Metal mining
	12xx	Coal mining
	13xx	Oil and gas extraction
	14xx	Mining/quarrying nonmetalic minerals
	20xx	Food and kindred products
	21xx	Tobacco products
	22xx	Textile mill products
	24xx	Lumber and wood products, except furniture
	26xx	Paper and allied products
	28xx	Chemicals and allied products
	29xx	Petroleum refining and related industries
	30xx	Rubber and miscellaneous plastic products
	32xx	Stone, clay, glass and concrete products
	33xx	Primary metal industries
Transportation Services	40xx	Railroad transport
	41xx	Public transit/transport
	42xx	Motor freight transport/warehousing
	43xx	U.S. Postal Service
	44xx	Water transportation
	45xx	Air transportation (including airline reservation services in 4512)
	46xx	Pipelines, except natural gas
	47xx	Transportation services (including 472x, arrangement of passenger transportation)

VII P3

Industry Sector Definitions

Industry Sector	SIC Code	Description
Telecommunications	48xx	Communications
Utilities	49xx	Electric, gas and sanitary services
Retail Distribution	52xx	Building materials
	53xx	General merchandise stores
	54xx	Food stores
	55xx	Automotive dealers, gas stations
	56xx	Apparel and accessory stores
	57xx	Home furniture, furnishings and accessory stores
	58xx	Eating and drinking places
	59xx	Miscellaneous retail
Wholesale Distribution	50xx	Wholesale trade - durable goods
	51xx	Wholesale trade - nondurable goods
Banking and Finance	60xx	Depositary institutions
	61xx	Nondepositary institutions
	62xx	Security and commodity brokers, dealers, exchanges and services
	67xx	Holding and other investment offices
Insurance	63xx	Insurance carriers
	64xx	Insurance agents, brokers and services
Health Services	80xx	Health services
Education	82xx	Educational services

North America

Outside N.

IV

Exhibit D-1

Information Services Market
User Expenditure Forecast by Delivery Mode and Submode
Western Europe, 1991-1996

(+ for each major country) also individual

Delivery Modes	ECU Million (Rounded) 1990	1990 1991 Growth (%)	1991	1992	1993	1994	1995	1996	1991 1996 CAGR (%)
Information Services Market Total	49200	14	55900	64200	73300	84500	97300	111700	15
Processing Services	6400	7	6850	7370	7910	8520	9130	9740	7
- Transaction Processing	5730	7	6110	6550	7010	7550	8070	8600	7
- Utility Processing	195	3	200	210	215	225	230	240	4
- Other Processing	485	10	535	600	670	740	815	910	11
Turnkey Systems	7900	14	9000	10300	11900	13700	15700	17700	14
- Equipment	4160	10	4590	5130	5710	6360	6970	7670	11
- Application Software	1580	18	1860	2250	2710	3210	3870	4460	19
- System Software	215	12	240	270	305	345	385	430	12
- Professional Services	1940	19	2310	2690	3180	3760	4450	5190	18
Application S/W Product	5600	18	6600	7700	9100	10800	12700	15200	18
- Mainframe	710	4	735	625	655	675	695	865	3
- Minicomputer	1850	14	2110	2440	2810	3180	3580	4060	14
- Workstation/PC	3020	23	3710	4590	5600	6910	8440	10280	23
System Software Product	8400	10	9200	10200	11400	12700	14100	15700	11
- Mainframe	4320	4	4500	4700	4890	5090	5280	5410	4
- Minicomputer	2540	12	2850	3240	3650	4130	4620	5190	13
- Workstation/PC	1500	23	1850	2280	2820	3440	4210	5120	23
Professional Services	15200	14	17400	20500	23400	27200	31500	36400	16
- IS Consulting	2160	12	2420	2830	3350	3940	4510	5210	17
- Custom Software	11500	14	13100	15500	17600	20500	23800	27500	16
- Education & Training	1650	15	1890	2140	2460	2810	3230	3710	14
Network Services	2940	18	3460	4070	4830	5810	7010	8480	20
- Electronic Info Svcs	2150	13	2430	2730	3090	3510	3990	4570	13
- Network Applications	790	29	1020	1330	1740	2290	3020	3910	31
Systems Operations	890	22	1090	1320	1580	1920	2300	2740	20
- Platform Operations	505	22	615	735	870	1045	1240	1460	19
- Application Operations	385	22	470	580	710	875	1060	1285	22
Systems Integration	1970	20	2360	2770	3320	3970	4740	5640	19
- Equipment	800	15	920	1050	1210	1390	1600	1840	15
- Application Software	71	24	88	106	131	173	216	275	26
- System Software	59	12	66	84	100	123	155	182	22
- Professional Services	1000	24	1240	1480	1810	2200	2660	3230	21
- Other	51	4	53	57	68	80	98	110	16.L

handled thru different channel - discuss separately - from App software delivery mode

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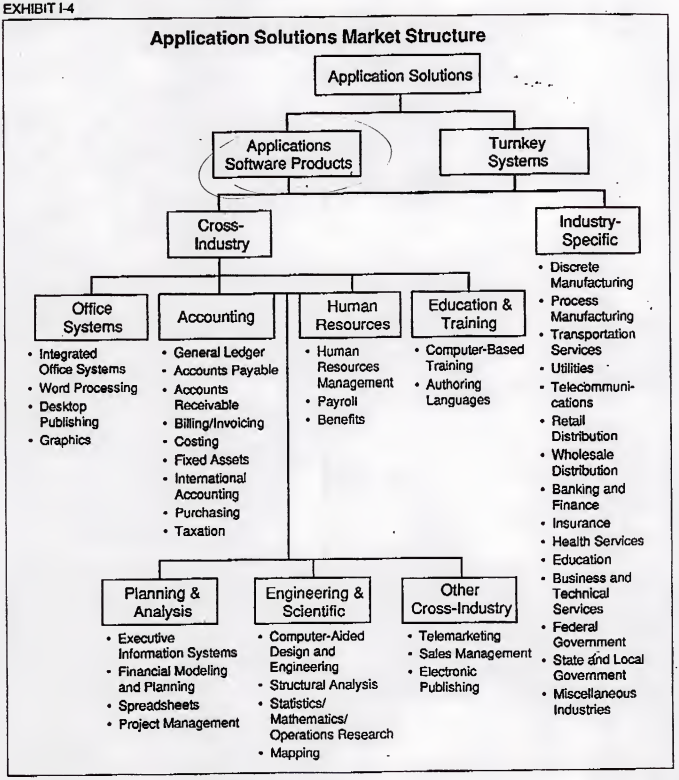
b. Delivery Mode Description

As shown in Exhibit I-4, application solutions is composed of the applications software products and turnkey systems delivery modes. Each delivery mode is analyzed by the cross-industry and industry-specific markets to which they are sold.

EXHIBIT I-4



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ANDERSEN CONSULTING
ARTHUR ANDERSEN & CO., S.C.

AMERICAS SOFTWARE
(312) 507-1043 / (312) 507-1048

Andersen Consulting
69 West Washington St.
Chicago, IL 60602

Date: 12/18/92

To: Tom O'Flaherty

Office: Export

From: Lisa Lane

Pages to follow: 5

Comments: _____

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If any problems result with this transmission, please call person listed below:

Operator: B. Barrow Phone: (312) 507-6570

December 18, 1992

TO: Mr. Tom O' Flaherty, INPUT

FM: Lisa D. Lane, Andersen Consulting

SUB: Recap of key points from 12/15 conference call and expectations for 1st phase of project

Based on our conversation on 12/15, I wanted to recap the key discussion points, identify our prioritized expectations, provide a tentative list of SIC code breakdowns to be used in generating software potential by industrial, consumer and process groupings, and provide a tentative meeting agenda.

If you feel that you have enough information, it would be helpful to discuss the quote for phase 1 (due by January 15) during our meeting on Monday.

We would like to meet on 12/21 from 12-3 at our offices in Chicago. We are located at 69 W. Washington. My office number is 2031 on the 20th floor.

I have one additional point regarding the diskette of your database elements. I spoke to AC Research and they did not receive a diskette or hard copy of the elements. Please bring a hard copy of them with you on Monday. Additionally, I would appreciate the document that you described detailing SIC codes within the food and consumer packaged goods segment.

Sincerely,

Lisa D. Lane

Lisa D. Lane

RECAP OF KEY POINTS FROM DISCUSSION ON 12/15

INPUT DATA:

All quantitative information provided by INPUT is based on user expenditures.

Worldwide data provided by INPUT in the quantitative phase at the IS level will include cross industry application software such as financials and human resources as well as industry specific such as discrete manufacturing.

No additional standard views of data exist other than views by delivery mode, industry sectors, and company size.

INPUT user surveys are done on a yearly basis to determine what happened last year in 22 vertical markets. Additionally, they develop a 5 year forecast surveying users and vendors on software and information services.

Published data is that which is annually surveyed for and delivered with an INPUT subscription. Unpublished data is that which is done for special purposes. INPUT makes no commitment that this information exists or is up to date.

INPUT recommends that AC combines the following elements on the User Expenditure Forecast By Delivery Mode and Submode document (exhibit D-1) to represent software potential:

Application software under the Turnkey Systems delivery mode
Total for Application S/W Product delivery mode

Additional Questions:

Can we get results (Information Services Market User Expenditure Forecast By Delivery Mode and Sub mode exhibit D-1) by 4 digit SIC code? NO

When data is stratified so that only companies >50 million have user expenditures included, are you working with the parent company or the site? L

When results are generated, will we get the User Expenditure Forecast By Delivery Mode and Submode report and the raw data as well? NO

Instead of segmenting the data only by companies greater that 50 million, could we get multiple groupings? For example: companies >50 million and < 150 million
companies >150 million and <250 million

If emp OK

U.S.

primary Segmentation by site (establishment) of # emp

PRIORITIZED EXPECTATIONS PHASE 1 (QUANTITATIVE)

Phase 1 - Quantitative Research **Completion Date 1/15/93**

Overall Request: All information generated should only include expenditure estimates from companies greater than 50 million dollars. If this filter criterion of >50 million would require a significant amount of time causing us to miss the January 15 deadline, it would become low priority.

High Priority

User Expenditure Forecast by Delivery Mode and Submode (exhibit D-1) document for the following :

United States:
- D-1 for each 2 digit SIC code identified by AC
- D-1 for Information Services Market

Europe:
- D-1 for Information Services Market (each major country or Europe as a whole)

Asia/Other:
- D-1 for Information Services Market (each major country)

Medium Priority

United States:
- D-1s for Mfg and Dist industries as a whole (2 of 4 major categories; mfg, govt,fin,dist)
- D-1 for industrial, consumer, process/energy groups.*

Europe:
- D-1s for Mfg and Dist industries as a whole (2 of 4 major categories)
- D-1 for industrial, consumer, process/energy groups.**

Asia/Other:
- D-1s for Mfg and Dist industries as a whole (2 of 4 major categories)
- D-1 for industrial, consumer, process/energy groups.**

Low Priority

None

* AC will provide a list of 2 digit SIC codes that comprise these three groupings.

** We understood from our conversation that these groupings don't exist in your standard database, but projections on these macro level numbers was feasible by Jan 15.

SIC CODE BREAKDOWN (TENATIVE)

build up a list

INDUSTRIAL

AUTOMOTIVE Supplier
37XX

ELECTRONICS
36XX
exclude semiconductors

HEAVY EQUIP/CONST.
15XX
16XX
17XX

CONSUMER MFG
23XX
25XX
27XX - Media
31XX
34XX — ?
35XX — ?

all Re test

CONSUMER

FOOD & CPG
20XX
21XX

WHOLESALE
50XX
51XX

PROCESS

CHEMICAL
28XX

PHARMACEUTICAL
28XX
283

Exclude: • Auto assembler
• Auto suppliers
• Heavy equipment

2 ESD / staff
+ out

AGENDA
DECEMBER 21 1992

Outline of AC vision project and the role of INPUT research	Bill Darnton Dwight Dowdell
INPUT'S Database and Research Methods	Tom O'Flaherty
Phase 1 Quantitative Research Scope Geographic Scope (targeted countries/markets Worldwide) Results Timing	Susan Erdman/Lisa Lane
Phase 2 Qualitative Research Scope Geographic Scope Results Timing	Susan Erdman/Lisa Lane
Additional Issues: Research on Services Market Synergy with Tom Moldauer's Research Cost of Phase 1 and 2	All

INPUT®

Atrium at Glenpointe, 400 Frank W. Burr Blvd., Teaneck, NJ 07666 (201) 801-0050
Fax (201) 801-0441

FAX TRANSMITTAL FORM

Date: Dec 15

Confidential: Y / N
Urgent: Y / N

To: Name: Lisa Lane

Tel./Location: 312-507-5553

Co.: Andersen

Page: 1 of 12

Fax No: 507-1043

File: Chron
Contact
Other:

From: Tom O'Flaherty

Subject: Add'l Materials Addressing Your Questions

I have annotated your questions & attached materials which are pertinent.

As far as I know Andersen is receiving (or will be receiving) most or all U.S subscription materials.

I may not be able to call you until 2:30 Central Time. If that is a problem, let me know.

Call 3pm EST

ANDERSEN CONSULTING
ARTHUR ANDERSEN & CO., S.C.

AMERICAS SOFTWARE
(312) 507-1043 / (312) 507-1048

Andersen Consulting
69 West Washington St.
Chicago, IL 60602

Date: 12-14-92

To: TOM O'FLAHERTY

Office: # 201-801-0441

From: SUSAN M. ERDMAN
LISA D. LANE

Pages to follow: (7)
(RETURN TO ROOM 2014/A)

Comments: - FOR IMMEDIATE DELIVERY -

Fax 507 1043

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If any problems result with this transmission, please call person listed below:

Operator: MARILYN J. BUSALD Phone: (312) 507-3048

December 14, 1992

TO: Mr. Tom O' Flaherty, INPUT

FM: Susan M. Erdman , Lisa D. Lane, Andersen Consulting

SUB: Questions on Product Sector Market Sizing

We are working on the product sector market sizing project to estimate software potential over the next few years. Based on the information that you sent to Tom Moldauer regarding our project, a number of questions have arisen. We would like to call you this afternoon 12/14 to discuss the attached questions.

Our approach is to get quantitative information at a low cost as quickly as possible. The next step will be to meet with members of your organization to discuss the survey that is required to gather additional data. The time frame for quantitative data is 1/20. The time frame for survey data has not been defined.

If a discussion today is not convenient, please call to schedule another time. Lisa - (312) 507-5553
Susan - (312) 507-4978.

Sincerely,

Susan Erdman
Susan M. Erdman

Lisa D. Lane
Lisa D. Lane

ANDERSEN CONSULTING PRODUCT SECTOR MARKET SIZING PROJECT

GENERAL QUESTIONS

1. Describe your database.
   - What data elements exist?
   - Size of database?
   - How many views of data can be accessed?
   - How often is data updated/verified?
   - How is data collected?
   - What industry segments do you cover?
   - What information is available for US vs. Europe vs. Asia vs. Other
   - Do you analyze growth in ways other than user expenditures? For example growth percentage of the industry as a whole?

2. Describe the difference between INPUT'S published vs. unpublished data (cost and time required to retrieve information). Is collection of unpublished data considered to be a customized search? yes/no

QUESTIONS ON ATTACHED EXHIBITS

1. Our proposed industry segmentation is listed on exhibit A. Is information available at higher level: industrial, consumer, and process/energy? Is it available at the lower level for those industries marked?

2. Exhibit 1
   - Describe each category on the horizontal axis and what goes into the numbers associated with them? For example , what types of software make up application software?
   - Can projections be taken out beyond 1997? If not numbers, general trends beyond 97?
   - What SIC codes make up each group on exhibit 1? For example discrete vs. process vs. distribution vs wholesale vs. retail.

3. Exhibit 2
   - Explain the breakdowns and what is included in each. For example turnkey systems vs. application software products.

4. Exhibit 3
   - Can you breakout chemical and pharmaceutical separately?
   - Do you have information at this level for other industry segments? For example heavy equip/construction or consumer mfg or wholesale distribution?

Exhibit A

- ☐ AEROSPACE AND DEFENSE
- ☑ ☐ AUTOMOTIVE (Supplier)
- ☑ ☐ ELECTRONICS / HI TECH
- ☑ ☐ HEAVY EQUIPMENT / CONSTRUCTION
- ☑ ☐ CONSUMER MANUFACTURING

- ☐ AIRLINES / TRAVEL SERVICES
- ☑ ☐ FOOD AND PACKAGED GOODS MFG.
- ☐ FOOD WHOLESALERS AND RETAILERS
- ☐ RETAILERS
- ☐ TRANSPORTATION
- ☑ ☐ WHOLESALE DISTRIBUTION

- ☑ ☐ CHEMICALS
- ☐ ENERGY
  - UPSTREAM
  - DOWNSTREAM
- ☐ METALS
- ☑ ☐ PHARMACEUTICAL
- ☐ PULP AND PAPER

DEC 14 '92 13:14 OM AC AMERICAS MARKETING PAGE.004

Exhibit 1: INPUT Data

Market Size and Growth (1992-97): Published Annually

	Appl SW	SI	IS Consulting	Cust Appl Dev	Ed	Appl SW Plat.
All Mfg						
o U.S.	x	x	x	x	x	x
o Europe	x	x	x	x	x	
Discrete (U.S.)	x	x	x	x	x	x
Process (U.S.)	x	x	x	x	x	x
Distribution						
o U.S.	x	x	x	x	x	x
o Europe	x	x	x	x	x	
Wholesale (U.S.)	x	x	x	x	x	x
Retail (U.S.)	x	x	x	x	x	x

EXHIBIT B-1

Process Manufacturing Sector
User Expenditure Forecast by Delivery Mode, 1991-1997

Delivery Modes	1991 ($M)	Growth 91-92 (%)	1992 ($M)	1993 ($M)	1994 ($M)	1995 ($M)	1996 ($M)	1997 ($M)	CAGR 92-97 (%)
Sector Total	5,568	11	6,182	6,877	7,674	8,582	9,622	10,827	12
Processing Services	717	5	743	778	815	853	895	939	5
- Transaction Processing	717	5	743	778	815	853	895	939	5
Turnkey Systems	558	10	614	676	744	817	899	990	10
- Equipment	268	10	294	324	358	392	431	474	10
- Software Products	201	10	221	244	268	295	325	358	10
- Applications	174	10	191	210	231	255	280	308	10
- Systems	28	10	30	33	37	40	44	49	10
- Professional Services	89	10	98	108	118	130	143	158	10
Applications Software Products	595	15	683	783	899	1,035	1,198	1,378	15
- Mainframe	189	11	182	193	203	212	225	279	9
- Minicomputer	207	12	231	258	288	322	356	395	11
- Workstation/PC	219	23	270	332	408	502	617	759	23
Systems Operations	442	15	509	584	677	793	928	1,086	16
- Platform Sys. Oprns.	197	15	227	261	302	354	414	484	16
- Applications Sys. Oprns.	245	15	282	324	376	440	515	602	16
Systems Integration	324	11	360	402	456	520	596	686	14
- Equipment	148	11	164	184	208	236	272	312	14
- Software Products	20	11	22	24	28	32	36	42	14
- Professional Services	156	11	174	194	220	252	288	332	14
Professional Services	2,119	10	2,324	2,546	2,788	3,050	3,338	3,678	10
- Consulting	510	15	591	678	773	882	1008	1164	15
- Software Development	1310	6	1386	1474	1568	1589	1760	1866	6
- Education & Training	299	16	347	394	447	579	568	648	13
Network Services	813	17	949	1,108	1,295	1,513	1,770	2,070	17
- Electronic Info. Svcs.	708	16	821	952	1,104	1,281	1,486	1,724	16
- Network Applications	105	22	128	156	191	232	284	346	22

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Exhibit 3:

Unpublished INPUT Data on Market Size and Growth (1992-97)

	Appl SW	SI	Con sult	Cust Appl Dev	Ed	Mkt Size by Co.Size	Appl Trends
Discrete (U.S.)							
Automotive	x	x	x	x	x	x	x
Aerospace	x	x	x	x	x	x	x
Electrical/ Electronic	x	x	x	x	x	x	x
Other	x	x	x	x	x	x	x
Process (U.S.)							
Food*/Cons Goods	x	x	x	x	x	x	x
Chem*/Pharm*	x	x	x	x	x	x	x
Petroleum	x	x	x	x	x	x	x
Other	x	x	x	x	x	x	x
Retail-Grocery*							x

* Sizing for specific applications and estimates for application platforms can be derived

Ex 4

EXHIBIT VIII-98

Information Services Industry
User Expenditure Forecast by Delivery Mode, 1991-1996
South Korea

Delivery Modes	1990 ($M)	Growth 90-91 (%)	1991 ($M)	1992 ($M)	1993 ($M)	1994 ($M)	1995 ($M)	1996 ($M)	CAGR 91-96 (%)
Total South Korea Information Services Market	658	35	888	1,192	1,582	2,118	2,842	3,760	33
Processing Services	70	21	85	105	130	165	208	264	25
-Transaction Processing Services	40	33	53	71	94	125	166	220	33
-Utility Processing	15	7	16	17	18	20	21	22	7
-Other Processing	15	7	16	17	18	20	21	22	7
Turnkey Systems	30	43	43	61	89	130	191	275	45
-Equipment	17	41	24	34	47	67	94	130	40
-Packaged Software Products	5	20	6	7	9	11	13	15	20
-Professional Services	8	63	13	20	33	52	84	130	58
Applications Software Products	136	35	184	248	335	453	611	770	33
Systems Operations	105	35	142	192	259	310	390	510	29
Systems Integration	37	46	54	79	116	170	252	368	47
-Equipment	15	47	22	32	45	65	94	135	44
-Packaged Software Products	4	50	6	9	14	20	30	45	50
-Professional Services	16	50	24	36	55	83	126	186	51
-Other Services	2	0	2	2	2	2	2	2	0
Professional Services	71	41	100	137	182	245	335	450	35
-Consulting	17	76	30	45	65	90	125	175	42
-Software Development	10	30	13	17	22	30	45	60	36
-Education and Training	44	30	57	75	95	125	165	215	30
Network Services	82	34	110	150	200	265	345	450	33
-Electronic Information Services	60	33	80	110	145	190	245	315	32
-Network Applications	22	36	30	40	55	75	100	135	35
Systems Software Products	127	34	170	220	280	390	510	673	32
-Systems Control	60	33	80	103	135	180	240	315	32
-Operations Management	22	36	30	36	40	52	70	88	24
-Applications Development	45	33	60	81	105	148	200	270	35

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ANDERSEN CONSULTING PRODUCT SECTOR MARKET SIZING PROJECT

GENERAL QUESTIONS

1. Describe your database.
   - What data elements exist? — see below (on diskette)
   - Size of database?
   - How many views of data can be accessed? — I, II
   - How often is data updated/verified? — Annual
   - How is data collected? — III
   - What industry segments do you cover?
   - What information is available for US vs. Europe vs. Asia vs. Other — IV
   - Do you analyze growth in ways other than user expenditures? For example growth percentage of the industry as a whole? — No?

2. Describe the difference between INPUT'S published vs. unpublished data (cost and time required to retrieve information). Is collection of unpublished data considered to be a customized search? yes/no - depends

QUESTIONS ON ATTACHED EXHIBITS

1. Our proposed industry segmentation is listed on exhibit A. Is information available at higher level: industrial, consumer, and process/energy? Is it available at the lower level for those industries marked?

2. Exhibit 1
   - Describe each category on the horizontal axis and what goes into the numbers associated with them? For example , what types of software make up application software? — V
   - Can projections be taken out beyond 1997? If not numbers, general trends beyond 97?
   - What SIC codes make up each group on exhibit 1? For example discrete vs. process vs. distribution vs wholesale vs. retail. — V, VI

3. Exhibit 2
   - Explain the breakdowns and what is included in each. For example turnkey systems vs. application software products. — VII, VIII

4. Exhibit 3
   - Can you breakout chemical and pharmaceutical separately? Yes *
   - Do you have information at this level for other industry segments? For example heavy equip/construction or consumer mfg or wholesale distribution? Only as described in Ex 3

* Some addl analysis required

INPUT

Atrium at Glenpointe, 400 Frank W. Burr Blvd., Teaneck, NJ 07666 (201) 801-0050
Fax (201) 801-0441

FAX TRANSMITTAL FORM

Date: Dec 10

To: Name: Tom Moldauer

Tel./Location: 312-507-8743

Co.: Andersen

Fax No: 0570

From: Tom O'Flaherty

Subject:

Confidential: Y/N
Urgent: Y/N

Page: 1 of 2

File: Chron
Contact
Other:

If you have any questions, I will be in my office all day Friday (snow willing)

December 10, 1992

To: Tom Moldauer, Andersen

Fm: Tom O'Flaherty, INPUT

Sub: Product Sector Market Sizing

CURRENT STATUS

Exhibit 1 summarizes the general data available in INPUT vertical market reports (which Andersen subscribes to and a sample is shown in Exhibit 2).

However, INPUT also keeps data by manufacturing subsectors that are very similar to Andersen's as shown in Exhibit 3.

- The baseline "delivery mode" data (SI, etc.) is just about as complete as the published data.
- In addition, the current market sizes for each sector can be broken out into company size groups.
- General application trend analysis is available; however, except for the sectors asterisked, sizing for individual applications is not available.

Note that U.S. data goes down one or two levels deeper than the European data. There is essentially no vertical data for the rest of the world. The rest of the world is analyzed by delivery mode (see example in Exhibit 4.)

PROPOSED EXPANSION

INPUT can, through a mixture of judgment/analysis and some additional research, produce results that would, in INPUT's opinion, fulfill over 90% of Andersen's needs.

Filling Holes in U.S. Data

- Three sectors should be researched to prioritize and size their specific applications. INPUT believes the most important are automotive, electrical/electronic and retail food.

- Taking this data and other data, INPUT would prepare full estimates for application sizing and company size segmentation in all the sectors in Exhibit 3.

- Given INPUT's current understanding of Andersen's needs, INPUT does not believe it would be useful to devote resources to doing detailed platform analysis by application or by product sector.

- Where there are assumptions to be made on vertical markets and vertical applications, INPUT believes it would be very useful to coordinate its efforts with the appropriate Andersen vertical specialists.

Constructing European Data

The European situation is quite different. There is insufficient data to "fill in the holes." INPUT proposes to build bridges between the complete U.S. data and the high level European data.

- INPUT will analyze the similarities and differences between specific sectors in the U.S. and Europe and then adjust the overall European data.

- In order to do this, INPUT recommends that at least three sectors be researched in Europe, using the same research methods that were applied to the same U.S. sectors. INPUT recommends that food processing. chemicals and electrical/electronics be researched.

- As in the U.S., INPUT would coordinate with Andersen vertical specialists.

Rest of World

- INPUT does not believe that it would be worthwhile to conduct any additional research on vertical markets or requirements for the rest of the world at this time.

- INPUT suggests that INPUT estimate the manufacturing portion of delivery mode markets for the rest of the world (or at least the major markets).

INPUT has not made detailed estimates of the work or cost involved, but believes that it would be in the $100K ballpark.a

Exhibit 1: INPUT Data

Market Size and Growth (1992-97): Published Annually

	Appl SW	SI	IS Consulting	Cust Appl Dev	Ed	Appl SW Plat.
All Mfg						
o U.S.	x	x	x	x	x	x
o Europe	x	x	x	x	x	
Discrete (U.S.)	x	x	x	x	x	x
Process (U.S.)	x	x	x	x	x	x
Distribution						
o U.S.	x	x	x	x	x	x
o Europe	x	x	x	x	x	
Wholesale (U.S.)	x	x	x	x	x	x
Retail (U.S.)	x	x	x	x	x	x

EXHIBIT B-1

Process Manufacturing Sector
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Unpublished INPUT Data
on Market Size and Growth (1992-97)

	Appl SW	SI	Con sult	Cust Appl Dev	Ed	Mkt Size by Co.Size	Appl Trends
Discrete (U.S.)							
Automotive	x	x	x	x	x	x	x
Aerospace	x	x	x	x	x	x	x
Electrical/ Electronic	x	x	x	x	x	x	x
Other	x	x	x	x	x	x	x
Process (U.S.)							
Food*/Cons Goods	x	x	x	x	x	x	x
Chem*/Pharm*	x	x	x	x	x	x	x
Petroleum	x	x	x	x	x	x	x
Other	x	x	x	x	x	x	x
Retail- Grocery*							x

* Sizing for specific applications and estimates for application platforms can be derived

EXHIBIT VIII-98

Information Services Industry
User Expenditure Forecast by Delivery Mode, 1991-1996
South Korea

Delivery Modes	1990 ($M)	Growth 90-91 (%)	1991 ($M)	1992 ($M)	1993 ($M)	1994 ($M)	1995 ($M)	1996 ($M)	CAGR 91-96 (%)
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-Other Processing	15	7	16	17	18	20	21	22	7
Turnkey Systems	30	43	43	61	89	130	191	275	45
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-Packaged Software Products	5	20	6	7	9	11	13	15	20
-Professional Services	8	63	13	20	33	52	84	130	58
Applications Software Products	136	35	184	248	335	453	611	770	33
Systems Operations	105	35	142	192	250	310	390	510	29
Systems Integration	37	46	54	79	116	170	252	368	47
-Equipment	15	47	22	32	45	65	94	135	44
-Packaged Software Products	4	50	6	9	14	20	30	45	50
-Professional Services	16	50	24	36	55	83	126	186	51
-Other Services	2	0	2	2	2	2	2	2	0
Professional Services	71	41	100	137	182	245	335	450	35
-Consulting	17	76	30	45	65	90	125	175	42
-Software Development	10	30	13	17	22	30	45	60	36
-Education and Training	44	30	57	75	95	125	165	215	30
Network Services	82	34	110	150	200	265	345	450	33
-Electronic Information Services	60	33	80	110	145	190	245	315	32
-Network Applications	22	36	30	40	55	75	100	135	35
Systems Software Products	127	34	170	220	280	380	510	673	32
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-Operations Management	22	36	30	36	40	52	70	88	24
-Applications Development	45	33	60	81	105	148	200	270	35

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INPUT

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CONTACT REPORT

Contact Date: 12/9/11/92

INPUT Staff: Init. TR Init. _____ ☐ INPUT office ☐ Client Office ☐ Other _____

Date Written: 12/11/92

Company Andersen	DISTRIBUTION: Action	Info.	By When	Prog./Proj. ID _____ Describe Action-F/U
Name Tom Moldauer	TOR			
Title	PAK	See attached		
Address Chicago		Paul		
Phone: (312) 507 - 8743				
Fax: ( ) -				

☐ Continued over

Action Items

TOF:
- o Discuss issues with Darden's staff Dec 11-18
- o Meet with Moldauer, Darden, et al in Chicago Dec 21

PAC (w/TOF): Try to meet with appropriate people to/from PAC trip to East coast week of Jan 11. Moldauer is checking availability for that week and will work with TOF week of 12/14

Background

1. Moldauer is responsible for developing a new generation of application products, using new technology. The main vertical focus will be manufacturing. INPUT has been doing a number of studies looking at vertical niche needs as well as the acceptability of different technologies.

2. A partner, Leroy ("Pete") Peterson is responsible for the "product" industry group (mfg, distribution, retail -- and airlines). Bill Darden reports to Peterson and is responsible for developing a marketing vision/business case for growing in these markets. Darden's scope is software products and services, although until recently he was just looking at the software products side seriously.

3. Andersen is much more serious than in the past about allocating investments rationally. Therefore, Darden wants to understand size and growth by segment. An example of this kind of segmentation is

- o Drug industry
  - o "Delivery modes"
    - o Each sized by company (customer) size
      - o By major application (each sized as above)
        - o By platform

4. Moldauer knew in general what Darden was doing, but was unaware when one of Darden's staff sent a request to the Market Research group to ask for quotes for the info in #3 above on a worldwide basis. I got it on Dec 3 for a Dec 7 response. The RFP was not well written since the Darden staff member wasn't very knowledgeable. After checking with Moldauer, I responded briefly, giving an indicative price of about $500,000.

5. Moldauer and I already had a meeting scheduled for Dec 9 where we were going to review work done under YNSW2/3 and plan

for the next steps in research. Moldauer's original plan had been to meet in Mt. View with TOF and PAC to form a strategy for putting together market data that would be similar to that proposed by Darden, but much more limited. One reason for that meeting was that Moldauer would be sponsoring the research jointly with Darden and assumed that any work would consequently have to be put out to competitive bid. Moldauer wanted to do everything possible to have INPUT get the work.

6. Moldauer met with Darden on Dec 11 where it was agreed that

- o They should jointly proceed on getting market data
- o That INPUT should supply the market data necessary; for time and cost reasons the outline in #3 above should be modified to build on what INPUT already has, supplemented by further analysis and some targeted research.
- o Additional research should be commissioned to gather additional qualitative information as well as application areas most in need of new technology.
- o Moldauer says that with this approach INPUT will not get a fee anywhere near the $500K quoted; I told him that I hadn't expected to. He also said that with this approach the jobs will almost certainly be non-competitive as long as Darden and his staff felt comfortable with INPUT.

7. The following will raise the comfort level:

- o TOF will talk to Darden's staff by telephone to review INPUT's data base and our approach to additional research. This will take place over the next several days.
- o TOF will meet with appropriate staff in Chicago Dec 21.
- o It would be a very good thing for PAC to meet with staff in Chicago in January. [I think this means Darden and Peterson.]

8. The above events essentially short-circuited Moldauer's original plan, which included a Mt. View meeting. Therefore, that meeting was cancelled. (The meetings in Chicago would be the replacement.)

These events do not exactly show Andersen at its best. However, we have come out of it very well:

- o Another (larger) group now has been introduced to us, one that we will almost certainly be doing business with.

- The internal politics/turf issues seem to have been resolved in our favor.

- We learned of this because we at INPUT had done our job and made a recent presentation to the market research group at Andersen on our custom capabilities. That's why we got the RFP (even though it's not going anywhere).

- We probably won't have to go through a competitive bid process.

INPUT®

Atrium at Glenpointe, 400 Frank W. Burr Blvd., Teaneck, NJ 07666 (201) 801-0050
Fax (201) 801-0441

FAX TRANSMITTAL FORM

Date: 12/7

Confidential: Y / N
Urgent: (Y) N

To: Name: Martha Jamesan

Tel./Location: 6668

Co.: Andersen

Page: 1 of 5

Fax No: 312-507-2548

File: Chron
Contact
Other:

From: Tom O'Flaherty

Subject: Response to your request

Please call me at home with questions, etc

212-496-8501

I will be in my office Tues at 9 am your time

	INPUT has foundation data for	INPUT would have to Conduct Research for
Mfg Appl SW	• U.S. by niche & Company size	
	• European market overall	→ niches/Company size (No Rest-of-World)
Appl SW Functions	For following U.S. niches: • Chemical • Pharmaceutical • Food/packaged goods • Distribution	• Remaining U.S. niches • All European niches
Platform	• U.S. for mfg appl SW as a group (no niche)	• All platform-related calls

INPUT

Atrium at Glenpointe, 400 Frank W. Burr Blvd., Teaneck, NJ 07666 Tel. (201) 801-0050
Fax (201) 801-0441

December 7, 1992

To: Martha Jameson, Andersen

Fm: Tom O'Flaherty, INPUT

Sub: Early Response to Your Request for the Status of Data on Manufacturing Software

Please note that we have not had enough time to prepare a more formal response. Let me know if the handwritten exhibits will suffice.

General Response

It is possible to provide information for all of the information requested.

It is INPUT's understanding that Andersen needs a multi-dimensional array for each vertical segment by geography. This is illustrated in Exhibit A.

- The number of divisions within each dimension were arbitrarily assumed as shown in the exhibit. The exact number is not so important as the result: A relatively large number of individual cells.
- Size, function/application and platform need to be defined in order to tell how closely any existing INPUT data maps against Andersen requirements.
- More importantly, some of the segments themselves need further definition (i.e., those in the request sheet with no SICs indicated).

Specific Response

INPUT already has some of this data available that could probably be supplied to Andersen in a workable format. INPUT's first cut at U.S. data availability is shown in Exhibit B.

- INPUT has software product data across segments. How much work would be required would be dependent on SIC definitions.

- INPUT has data on functions/applications in up to six segments. Again, the comprehensiveness of the information will depend on SIC groupings.

- INPUT has company size information for these segments. However, it has relatively little information on the market behavior of these segments.

- INPUT has little analysis on platform directions by segment.

As can be seen from the above, INPUT does not now have data that would enable it to fill in all the cells for any U.S. segment. However, it has a good solid foundation in half or more of them (depending on ultimate segment definitions).

The European situation is relatively straightforward: There is western European data for manufacturing as a whole. Subsidiary analyses in Europe are by country.

INPUT does have a rest-of-world figure for applications software but no vertical breakdowns. Finer breakdowns are on a country basis (approximately 30 countries).

Time and Cost Estimates

The following estimates are order of magnitude for your planning purposes. They may be subject to significant change as Andersen's information requirements are further defined.

To complete research and analysis for the U.S.: $50,000 - $100,000; 2-3 months.

To provide European figures: $100,000 - $200,000; 3-4 months.

To provide rest-of-world: Time ands cost would be somewhat more than Europe. INPUT is not sure that looking outside of the U.S. and Europe would be cost-effective, given the undeveloped state of the Japanese market and the relatively small size of this market overall.

INPUT®

Atrium at Glenpointe, 400 Frank W. Burr Blvd., Teaneck, NJ 07666 (201) 801-0050
Fax (201) 801-0441

FAX TRANSMITTAL FORM

Date: 2/25

Confidential: Y / N
Urgent: (Y) / N

To: Name: Renee

Tel./Location:

Co.:

Page: 1 of 1

Fax No:

File: Chron
Contact
Other:

From: TR

Subject: Billing for YA1 (né YNAN1)

Original fee (per proposal) $14,000

Add-on (approved verbally) 3,000

17,000

Advance payment 7,000

Balance (b.11) $10,000

(expenses inboarded - minimal)

Software and Services Market
Discrete Manufacturing, Europe

	U.S. Dollars (Millions)				
	1991	'91-'92 AGR (%)	1992	'92-'97 CAGR (%)	1997
Transaction Processing	1,210	3	1,250	2	1,380
Turnkey Systems	2,810	9	3,050	11	5,130
Applications Software Products	2,240	16	2,590	16	5,410
Professional Services	2,610	11	2,910	12	5,060
Network Services	970	20	1,160	22	3,150
Systems Operations	295	19	350	22	940
Systems Integration	465	19	555	22	1,480
Industry Sector Total*	10,600	12	11,850	14	22,550

* Totals may not add due to rounding.

Software and Services Market
Process Manufacturing, Europe
(U.S. Dollars Millions)

Delivery Mode	1991	'91-'92 AGR (%)	1992	'92-'97 CAGR (%)	1997
Transaction Processing	330	3	340	5	430
Turnkey Systems	1,170	10	1,290	14	2,510
Applications Software Products	730	18	860	17	1,920
Professional Services	1,490	13	1,690	14	3,310
Network Services	340	21	410	22	1,120
Systems Operations	380	20	455	21	1,170
Systems Integration	210	19	250	21	645
Industry Sector Total*	4,650	14	5,300	16	11,100

* May not compute due to rounding.

Industry-Specific Software and Services
Distribution Sector, Europe

	$ Millions				
Subsector	1991	'91-'92 AGR (%)	1992	'92-'97 CAGR (%)	1997
Retail	2,050	12	2,250	10	3,700
Wholesale	2,450	8	2,710	11	4,600
Total Europe (Rounded)	4,500	10	4,950	11	8,300

Distribution Sector, Europe
Software and Services Market, 1992-1997

	$ Millions				
Subsector	1991	'91-'92 AGR (%)	1992	'92-'97 CAGR (%)	1997
Transaction Processing	310	0	310	3	360
Turnkey Systems	1,260	10	1,390	10	2,250
Applications Software Products	490	16	570	14	1,080
Professional Services	1,740	7	1,860	8	2,730
Network Services	270	19	320	19	770
Systems Operations	80	25	100	21	255
Systems Integration	335	18	395	16	830
Industry Sector Total (Rounded)	4,500	10	4,950	11	8,300

PROJECT SCHEDULE

Activity	Name	Act. Days	Factor	ESD	Week 1	2	3	4	5	6	7	8	9	10	11	12	13	14
Q design			~~7~~	1/2	½													
75 U.S. 880 6k				4		2	1	1										
Supervisia	JP			3	1	1	½	½										
75 Eur @ 100 75				4½		1	2	1½										
An				2			.	1	1									
Rpt				1½				½	1									
TOTAL PLAN SR.																		
TOTAL PLAN RA																		
TOTAL PLAN ESDs				25														

Proj. Code: _____ Proj. Name: Anderson - Qualitative Prepared by: TA

Proj. Manager: _____ Date: 12/29

	Person Days							
	February				Year			
	Actual	ESMD	Accomplish	Plan	Actual	ESMD	Accomplish	Plan
100 O'Flaherty, Tom	0.0	0.0	0.0	0.0	1.9	1.9	1.9	0.0
414 Ponnwitz, Joanne	2.9	2.2	2.2	0.0	8.1	6.0	6.1	0.0
20 Program Research	2.9	2.2	2.2	0.0	9.9	7.9	7.9	0.0
559 Boyle, Joanne	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
60 Report Production	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
YA-1.. Custom - Andersen	2.9	2.2	2.2	0.0	10.3	7.9	7.9	0.0